

c) REMARKS

The claims are 1, 3-6, 9-13 and 27, with claims 1 and 11-13 being independent. Claims 1 and 11-13 have been amended to better define the intended invention.

Claims 1 and 11-13 have been amended to clarify that the auxiliary electrode is electrically separate from the substrate and is spaced between the discharge electrode and the substrate. Support for this amendment is found, *inter alia*, on page 21, lines 20-25, original claim 27 and in Fig. 1, where auxiliary electrode 110 is connected to power amplifier 111 and signal generator 112, while substrate 102 in holder 103 is connected to ground.

Claims 1, 3-6, 11-13 and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al., WO 98/58100 (or its counterpart, U.S. 6,372,303) (Burger '303). Claim 6 was rejected as obvious over Burger in view of Tamura, JP '127. Claims 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Burger in view of Raoux et al., U.S. 6,162,709 (Raoux '709). Applicants respectfully traverse these rejections.

Burger is said to teach a substrate holder 11, which is said to act as an auxiliary electrode by producing a substrate bias, and which is supplied with a frequency. Further, in Burger a substrate voltage is applied to the substrate 10 through substrate holder 11. Therefore, the substrate and holder are in direct electrical communication. In addition, in Burger the holder 11 actually supports substrate(s) 10. The substrates 10 are therefore

spaced between the substrate holder 11 and microwave source 15 which produces plasma 20.

Therefore, in Burger the substrate holder is not spaced between the discharge electrode and the substrate. Accordingly, the presently claimed invention differs from Burger in that (a) the substrate and auxiliary electrode are not in electrical communication; (b) the auxiliary electrode is spaced between the discharge electrode and substrate; and (c) Burger's method operates in a different fashion to generate plasma and does not control generating hydrogen radicals by a separate auxiliary electrode spaced in the plasma.

Finally, Burger's frequency range is from 0.1 KHz to 10 MHz, preferably 1-100 KHz. Accordingly, Burger tends to teach away from the present claimed range. The lower limit for the frequency of the voltage applied to the instant auxiliary electrode is at least 1 MHz to prevent inducing unnecessary movement of ions (see page 15, lines 24-25, in the specification). To the contrary Burger prefers a frequency of 1-100 KHz, which is less by a factor of 1000 than Applicants' lower limit.

Accordingly, Applicants submit that none of the references, whether considered alone or combined, discloses or suggests the present claimed invention nor renders it unpatentable. It is respectfully requested that the amendment be entered, the claims be allowed and that the case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Peter Saxon
Peter Saxon
Attorney for Applicants
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

NY_MAIN 425533v1